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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte OLEG B. RASHKOVSKIY

Appeal 2007-0721
Application 09/690,549
Technology Center 2600

Decided: March 7, 2008

Before JOHN C. MARTIN, LEE E. BARRETT, and ALLEN R. MACDONALD,
Administrative Patent Judges.

MARTIN, *Administrative Patent Judge.*

DECISION ON APPEAL
STATEMENT OF THE CASE

This is an appeal under 35 U.S.C. § 134(a) from the Examiner's rejections of claims 47-57, all of the pending claims, based on prior art. We have jurisdiction under 35 U.S.C. § 6(b).

We reverse.

A. Appellant's disclosure

This invention relates generally to systems used, for example, in a home to record audio or visual content including advertisements for subsequent replay and, more particularly, to such a system in which the stored advertisements are automatically updated in response to update instructions. Thus, each time the user replays the stored content he or she will see the most current advertisement (Specification 9:16-18). For example, a commercial from an automobile dealer advertising a Fourth of July sale would be replaced after that sale by a more current commercial (*id.* at 9:11-16).

The Specification applies the term “content,” which appears in the claims, collectively to programming and commercials: “In the course of receiving and compressing the content, a commercial may be identified within the content as indicated in block 54 (*id.* at 4:6-8).

The commercials and the other content may be recorded in different memories or in different parts of the same memory (*id.* at 5:9-11).

“When the commercial is recorded, a marker may be inserted into the ongoing content record in order to identify the location to insert a commercial” (*id.* at 5:14-16), which we understand to mean the marker identifies the location in which to insert a commercial during playback. “In addition, a pointer may be provided to indicate where the commercial has been stored, when the commercial is stored in a different storage or in a different storage area than the rest of the content” (*id.* at 5:16-20).

The “update instructions” may be acquired and stored at the same time that a commercial is first received or may be obtained thereafter (*id.* at 8:4-7).

The term “update instructions” is not defined in the Specification but appears to include an instruction indicating when to perform an updating operation. *See id.* at 6:20-23 (“For example, in accordance with one embodiment, at predetermined times, all of the stored commercials may be automatically updated in accordance with stored update instructions.”); *id.* at 8:6-11 (“In other embodiments, update instructions may thereafter be obtained. For example, by identifying a commercial using codes or keywords as two examples, a system may automatically determine from a database when the commercial should be updated.”).

The Specification distinguishes updated advertisements from entirely new replacement advertisements. *See id.* at 9:20-24 (“In some embodiments of the present invention, a stored advertisement may be replaced with an updated advertisement. However, in other embodiments, the stored advertisement may be replaced by another advertisement that does not constitute an update.”); *id.* at 10:15-19 (“In some cases, the replacing advertisements may be updates of existing advertisements. In other cases, the replacing advertisements may be totally new advertisements unrelated to the advertisements they replace.”).

B. The claims

The claims are directed to replacing previously recorded advertisements with updated advertisements. Claim 47, the sole independent claim, reads:¹

47. A system comprising:

a receiver to receive content, an advertisement and update instructions for said advertisement;

a cache, coupled to said receiver, to store said content and said advertisement; and

a shell, in said receiver, to find a place to insert the advertisement in the cached content before the cached content continues to be output for display, said receiver to receive an update for said advertisement and to automatically replace said advertisement with said update using said instructions.

C. The references and rejections

The references relied on by the Examiner and their issue dates are:

Khoo et al. (Khoo)	US 6,434,747	Aug. 13, 2002
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Rosser	US 6,466,261	Sept. 3, 2002
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Claims 47-50 and 55-57 stand rejected under 35 U.S.C. § 102(e) for anticipation by Rosser.

¹ Prior to filing the Brief, Appellant submitted a Reply to Final Rejection including proposed amendments of claims 47-49. The proposed amendments were denied entry in the January 27, 2006, Advisory Action Before the Filing of an Appeal Brief.

Claims 51-54 stand rejected under § 103(a) for obviousness over Rosser in view of Khoo.

THE ISSUES²

Has Appellant demonstrated that the Examiner erred in rejecting the claims for anticipation or obviousness?

PRINCIPLES OF LAW -- ANTICIPATION

Anticipation is a question of fact. *In re Schreiber*, 128 F.3d 1473, 1477 (Fed. Cir. 1997). “To anticipate a claim, a prior art reference must disclose every limitation of the claimed invention, either explicitly or inherently.” *Id.*

Claims will be given their broadest reasonable interpretation consistent with the specification and limitations appearing in the specification are not to be read into the claims. *In re Zletz*, 893 F.2d 319, 321-22 (Fed. Cir. 1989).

ANALYSIS

² Appellant has the burden on appeal to the Board to point out the errors in the Examiner’s position. *See In re Kahn*, 441 F.3d 977, 985-86 (Fed. Cir. 2006) (“On appeal to the Board, an applicant can overcome a rejection by showing insufficient evidence of *prima facie* obviousness or by rebutting the *prima facie* case with evidence of secondary indicia of nonobviousness.”) (quoting *In re Rouffet*, 149 F.3d 1350, 1355 (Fed. Cir. 1998)).

A. Rosser's disclosure

Rosser discloses a television system in which a viewer's set-top device can be used to insert, into the picture displayed on viewer's video screen, commercial advertising tailored to the viewer based on his or her viewing history, which is monitored by the set-top box.

In the Figure 1 system, the transmitter includes an LVIS (Live Video Insertion System) front end 16 for inserting extra information (e.g., advertising) into a standard video signal, such as by inserting the extra information into the vertical blanking signal or into a spare audio channel (col. 6, ll. 52-55). Specifically, an encoding unit 24 in LVIS front end 16 may insert into the video signal all or any of a graphic or video for insertion 26, a program category code 27, or one or more user profile and enabling keys 28 (col. 6., ll. 55-61). The inserted information may occupy a number of video fields (*id.*).

The set-top device 44 at the receiver includes a downstream LVIS system 46, a memory device 5, and a viewer profile 50. The set-top device 44 strips off, interprets, and uses any of a graphic or video, a user enabling key, one or more viewer usage profile keys 120, and a program category code that may have been attached to the video stream (col. 7, ll. 46-50). Based on a comparison of the viewer usage profile keys 120 with the local viewer usage profile 50, different insertions 58 and 60 may be made on different end users' video viewing devices 56 (col. 7, ll. 51-55). The different insertions may be permanently stored locally in memory device 55 or downloaded there during or prior to transmission of the live video transmission into which they are inserted for display (col. 7, ll. 55-58).

Figure 2 shows the details of a suitable set-top device 44. The device includes, *inter alia*, a vertical blanking interval decoder 80, which causes the various advertising video and text insertion candidates to be stored in video insertion circuit 90 and text data circuit 92. *See* column 10, lines 29-31 (“Profile matcher 96 also selects which of the stored video insertions 90 are fed to warp unit 100.”). The vertical blanking interval decoder 80 also extracts the “required viewer usage profiles” that correspond to each of the video and text insertion candidates (col. 10, ll. 18-20). The profile matcher 96 compares the viewer’s usage profile (74) with the received “required viewer usage profiles” in order to determine which of the stored video and/or data insertions is to be combined with the television signal in multiplexer 102, which is coupled to the viewer’s television set via a channel 3 modulator 104.

Figure 4 shows an alternative embodiment of the set-top device for receiving an input data stream 70 from any of internet/telephone 130, cable 132, broadcast 134, and satellite 136. The insertion video and data are stored, for example, in video/audio storage unit 152 (col. 13, ll. 13-33), which can take the form of a RAM (col. 11, ll. 1-10). Two modes of operation are described. In the first, advertising information is received as an alternate video feed from one of the inputs and stored in video/audio storage unit 152 (col. 13, ll. 13-18). More particularly,

[t]his alternate video feed would typically be relaying a number of different advertisements with a requested viewer usage profile or range of profiles suitably associated, attached to or encoded in, each particular advertising sequence. The contents of the alternative feed may be stored in video and audio storage unit 152. At the appropriate time and place for advertising insertion, which may be, but is not limited to, a conventional advertising break, or when the viewer

changes channel, or when a particular image or scene is in view, the central controller will use video and audio router 150 and data router 152 and whichever is necessary of the other video and audio function modules, including but not limited to, video and audio storage device 152, to place an appropriate advertisement on the end user's viewing device 106. The appropriate advertisement on any given set top device would be the one where the local viewer usage profile matches or falls within the parameters of the required viewer usage profile attached to the advertisement.

Col. 13, ll. 18-37.

In the second mode of operation, the set-top device functions as a downstream LVIS system and thus like the Figure 2 embodiment. The interpreter 146 extracts advertising information from the vertical blanking interval of the television signal and data store 168 stores the advertising information for later insertion into the displayed television signal (col. 14, ll. 26-47).

B. Whether Rosser discloses a “cache . . . to store said content and said advertisement”

While, as noted above, the Specification applies the term “content” collectively to programming and commercials, it is evident from claim 47 as a whole that the term “content” as used therein refers to content other than advertisements (e.g., to a television program). As explained in *Phillips v. AWH Corp.*, 415 F.3d 1303, 1314 (Fed. Cir. 2005):

Quite apart from the written description and the prosecution history, the claims themselves provide substantial guidance as to the meaning of particular claim terms. *See Vitronics [Corp. v. Conceptronic, Inc.]*, 90 F.3d [1576 (Fed. Cir. 1996)] at 1582; *see also ACTV, Inc. v. Walt Disney Co.*, 346 F.3d 1082, 1088 (Fed. Cir. 2003) (“the context of the

surrounding words of the claim also must be considered in determining the ordinary and customary meaning of those terms”).

In response to Appellant’s argument that Rosser fails to disclose a cache that stores “content” as well as advertising, the Examiner contends that claim 47’s recitation of “a cache . . . to store said content”

is not a positive recitation that the cache does store the content. In response to appellant’s argument, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. As such, Rosser clearly teaches that the audio video storage unit 152, (col. 11, lines 1-8) may at least be embodied as RAM memory or a DVD, which are clearly capable of performing the intended use.

Answer 9. We do not agree that storing content in claim 47 is simply a statement of intended use. Any doubt that the recitation of “a cache . . . to store content” refers to a cache that actually stores content is removed by the further recitation of “a shell . . . to find a place to insert the advertisement *in the cached content before the cached content continues to be output* for display” (emphasis added). Therefore, in order to anticipate, Rosser must expressly or inherently disclose a cache that stores content and advertising.

The Examiner reads the recited “cache . . . storing content” on video/audio storage 152 in two different ways. First, the Examiner noted that because it can be in the form of a RAM (col. 11, ll. 1-4), it is inherently *capable* of storing both content and advertisements (Answer 9). However, as noted above, the claim

requires a cache (i.e., memory) that is described as intended to store content and advertising.

Second, the Examiner held that video/audio storage 152 is described as storing content and advertisements. Specifically, in the Final Action (at 3), the Examiner read the claimed cache on video/audio storage 152 (Fig. 4), citing passages in columns 13 and 14. The column 13 passage reads as follows:

One method of achieving this market segmentation by profile factor, is the following. While set-top central controller 146 is routing the viewer requested video, television or other source to the end user's set, it may also be routing alternate video or television feeds, either by different channels in the same down loader, or by different down-loader to video and audio storage unit 152 or data store 165. *This alternate video feed would typically be relaying a number of different advertisements with a requested viewer usage profile or range of profiles suitably associated, attached to or encoded in, each particular advertising sequence.* The contents of the alternative feed may be stored in video and audio storage unit 152. At the appropriate time and place for advertising insertion, which may be, but is not limited to, a conventional advertising break, or when the viewer changes channel, or when a particular image or scene is in view, the central controller will use video and audio router 150 and data router 152 and whichever is necessary of the other video and audio function modules, including but not limited to, video and audio storage device 152, to place an appropriate advertisement on the end user's viewing device 106. The appropriate advertisement on any given set top device would be the one where the local viewer usage profile matches or falls within the parameters of the required viewer usage profile attached to the advertisement.

Col. 13, ll. 13-37 (emphasis added). The Examiner construes the foregoing statement that “[t]his alternate video feed would typically be relaying a number of different advertisements” to mean that the alternate video feed is not limited to

advertising and thus may “atypically” include “content” (Answer 8-9). We agree with Appellant that “[t]here is no reason to know what is done ‘atypically’ because the reference does not say anything about such a hypothetical atypical operation” (Reply Br. 3). The use of the term “typically” does not necessarily imply that the alternate video feeds can contain content. That term can also be understood to mean that the advertising in the alternate video feed need not contain “a requested viewer usage profile or range of profiles suitably associated, attached to or encoded in, each particular advertising sequence,” as recited in the sentence in question. The column 13 passage is therefore at best ambiguous regarding whether video/audio storage 152 stores advertising and content and thus cannot be relied to prove anticipation. *See In re Brink*, 419 F.2d 914, 917 (CCPA 1970) (“if a reference is ambiguous and can be interpreted so that it may or may not constitute an anticipation of an appellant's claims, an anticipation rejection under 35 U.S.C. § 102 based upon the ambiguous reference is improper”). Furthermore, Appellant correctly notes -- at least insofar as Rosser’s video/audio storage 152 is concerned -- that Rosser has “nothing to do with caching both advertisements and content. Instead, the reference believes that he does not need to cache content because he can somehow just inject the advertisements into the streaming [i.e., live] content.” Reply Br. 5.

Nor can support for the Examiner’s position be found in the cited column 14 passage, which reads:

The LVIS information extracted by interpreter 164, may be temporarily stored in e [sic] data store 168 for use at a later, appropriate time, or used immediately to extract appropriate material from data store 168, the video and audio storage unit 152, which may

be video and audio insertions, and direct it via the appropriate additional desk top functional units.

Col. 14, ll. 41-47. This passage does not indicate that either of data store 168 and video/audio storage 152 stores content other than advertisements and related information, such as required viewer usage profile information.

The Examiner alternatively relies on the fact that “Rosser discloses that the system may be used as a conventional VCR, see col. 5, lines 32-43, thereby storing conventional video programming” (Answer 9). The cited lines read as follows:

Writable digital video disks, or other high capacity, random access memory could be used by advertisers to store full motion video for insertion at the appropriate time. Such devices can also provide viewers with their own instant replay feature, automatically storing the last five or more minutes of what ever program was being watched. This feature would also make the magnification capability more compelling, especially for example to sports fans who may wish to go back and look at some aspect of play such as a ball landing close to a line in detail. Writable devices can also act as a scrap pad for grabbing bits of video they want to see later or show someone else; or as a more *conventional video recorder*.

Col. 5, ll. 31-42 (emphasis added). Appellant responded that

[t]he assertion that because Rosser teaches a VCR he could store anything, ignores the fact that the connections and arrangements of the RAM must be such to store content and advertisements. This Rosser never thought of. Plainly, there is no storage of both advertisements and content. That is part of what is wrong with Rosser from a technical standpoint. He simply does not store the content and thinks he can proceed without doing so.

Reply Br. 4. This argument is unpersuasive because it is based on the incorrect assumption that, in order to anticipate, Rosser must store both content and

advertisements in the video/audio storage 152 (which may be a RAM). Claim 47 is broad enough to permit the content and advertisements to be stored in different memories, as disclosed in Appellant's Specification (*e.g.*, at 5:9-11). Thus, Appellant has not shown that the Examiner erred in finding that Rosser discloses a cache that stores content as well as advertising.

The Examiner also relies on other parts of Rosser as disclosing caching content in addition to advertisements. Specifically, the Examiner held that "with respect to cached content, examiner contends that such a feature is broad enough to read on any temporary buffering or caching of the video during processing" (Answer 9), with the result that the claimed cached content can be read on either decompressor 82 or delay line 86 in Figure 2 (*id.* at 9-10). It is not clear whether the Examiner is proposing to (1) read both the cached content and the cached advertisement on these elements or (2) read only the cached content on those elements and read the cached advertisement on video insertion circuit 90 and/or text data circuit 92. The fact that the Examiner's explanation mentions video but not advertisements arguably can be understood to suggest that the Examiner was taking the second position, *i.e.*, reading only the cached content on either the decompressor or the delay line. However, because the Examiner's position is not clear on this point, we cannot fault Appellant for instead addressing only the other position. *See* Reply Br. 5 ("[T]o suggest that the MPEG standard requires storing both content and advertisements is, of course, ridiculous."). Because of the ambiguity in the Examiner's position, we will not affirm the rejection to the extent it relies on the decompressor and/or delay line.

Nevertheless, for the reason given above regarding “VCR” operation, Appellant has not persuaded us of error in the Examiner’s position that Rosser discloses “a cache . . . to store said content and said advertisement.”

C. Whether Rosser discloses the “update” limitations

The Examiner reads the recited “update instructions” on the “viewer usage profile keys” that are sent with the advertising information to identify the intended class of viewers and are compared with the viewer’s own usage profile (stored in the set-top device) in order to determine which advertising to display. Specifically, the Examiner held that

'update instructions' are broad enough to read on the LVIS information, such as information attached to a proposed insert, (col. 7, lines 1-19) which are sent from the headend and are used to determine which advertisement(s) will be inserted in the content, using the viewer usage profile data 120, col. 7, lines 45-58. Note, update instructions determine which Ad is shown. Also see Fig. 1 where two different Ads and logos are displayed based on the update instructions.

Answer 4. The Examiner further explained that

"update instructions" also reads on the instructions provided in the LVIS that change from one advertisement to another advertisement, such as user enabling key, usage profile keys, and program category code, see col. 7, lines 1-12; col. 7, lines 50-53 & col. 13, lines 25-48. These update instructions in Rosser, replace the default advertisement with an advertisement appropriate for the subscriber's set top box 44.

Answer 8. Of the these cited passages, the most relevant appears to be the following, which is part of Rosser’s discussion of using the Figure 4 embodiment to receive and store an alternate video feed that contains advertising video:

At the appropriate time and place for advertising insertion, which may be, but is not limited to, a conventional advertising break, or when the viewer changes channel, or when a particular image or scene is in view, the central controller will use video and audio router 150 and data router 152 and whichever is necessary of the other video and audio function modules, including but not limited to, video and audio storage device 152, to place an appropriate advertisement on the end user's viewing device 106. The appropriate advertisement on any given set top device would be the one where the local viewer usage profile matches or falls within the parameters of the required viewer usage profile attached to the advertisement. *A default advertisement may be shown to homes where the viewer profile does not match or fall within the profiles or profile ranges requested by the advertisers targeting their advertisements to specific audiences.*

Col. 13, ll. 25-37 (emphasis added).

While Appellant's assertion that "there is no default advertisement" (Reply Br. 3) is clearly incorrect, Appellant is correct to note that "the Examiner . . . never shows any language where anything is replaced with anything else" (*id.*). Rather than describing the replacement of a default advertisement with a different advertisement, the above-quoted passage simply explains that a default advertisement will be displayed in the absence of a match between the viewer's profile and the profiles required to view the other advertisements. Appellant is therefore correct to argue that "nowhere [in Rosser] is there the contemplation that advertisement in particular might need to be updated over time and thereby automatically replaced" (Appeal Br. 11).

We are accordingly reversing the rejection of claim 47 and its dependent claims 48-50 and 55-57 for anticipation by Rosser.

D. The obviousness rejection (claims 51-54)

Dependent claim 51, on which claims 52-54, depend, reads:

54. The system of claim 47 wherein said receiver to receive content interrupted with said advertisement, said receiver to determine whether said advertisement was previously stored.

The Examiner relied on Khoo for a teaching of providing a list of customized media to a user terminal, at least for the purpose of allowing the user to view the instant items that are stored and make modifications (Answer 6).

Because the subject matter relied on in Khoo does not cure the above-noted deficiencies in the rejection of parent claim 47 for anticipation by Rosser, the rejection of claims 51-54 for obviousness over Rosser in view of Khoo is also reversed.

Appeal 2007-0721
Application 09/690,549

DECISION

The § 102 rejection of claims 47-50 and 55-57 is reversed, as is the § 103 rejection of claims 51-54.

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REVERSED

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